

What is claimed is:

[Claim 1] 1. A golf ball comprising:

a core;

a cover layer disposed over the core, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of multi-faceted polygons defined by a plurality of lattice members, each of the multi-faceted polygons having at least fourteen facets; and
a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer.

[Claim 2] 2. The golf ball according to claim 1 wherein the plurality of lattice members cover the entire surface of the golf ball.

[Claim 3] 3. The golf ball according to claim 1 wherein each of the plurality of lattice members has an apex with a width less than 0.00001 inch.

[Claim 4] 4. The golf ball according to claim 1 wherein the each of the plurality of multi-faceted polygons is either a hexagon or a pentagon.

[Claim 5] 5. A golf ball comprising:

a core;

a cover layer disposed over the core, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of lattice members wherein an apex of at least one of the plurality of

lattice members defines the greatest extent of the golf ball, wherein each of the lattice members has continuous surface contour; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer.

[Claim 6] 6. A golf ball comprising:

a core;

a cover layer disposed over the core, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of multi-faceted polygons defined by the plurality of lattice members, a majority of the multi-faceted polygons having at least twenty-four facets; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer.

[Claim 7] 7. The golf ball according to claim 6 wherein the multi-faceted polygons comprises a plurality of inner facets and a plurality of outer facets.

[Claim 8] 8. A golf ball comprising:

a core;

a boundary layer disposed over the core;

a cover layer disposed over the boundary layer, the cover layer

having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer

having a plurality of multi-faceted polygons defined by a plurality of lattice

members, each of the multi-faceted polygons having at least fourteen facets;

and

a plurality of depressions in the cover layer, each of the plurality of

depressions having a depth at least equal to the thickness of the cover layer.

[Claim 9] 9. The golf ball according to claim 8 wherein the each of the plurality of depressions have a depth equal to the thickness of the cover layer and the boundary layer.

[Claim 10] 10. The golf ball according to claim 8 wherein the each of the plurality of depressions extend through the cover layer and the boundary layer and into the core.

[Claim 11] 11. The golf ball according to claim 8 wherein the cover layer is composed of a polyurethane material.

[Claim 12] 12. The golf ball according to claim 11 wherein the cover layer is formed by reaction injection molding.

[Claim 13] 13. The golf ball according to claim 11 wherein the cover layer is formed by casting.

[Claim 14] 14. The golf ball according to claim 8 wherein the cover layer is composed of a blend of ionomer materials.

[Claim 15] 15. The golf ball according to claim 14 wherein the cover layer is formed by injection molding.

[Claim 16] 16. The golf ball according to claim 8 wherein the core comprises a center and a mantle layer disposed around the center.

[Claim 17] 17. The golf ball according to claim 10 wherein the boundary layer is composed of a blend of ionomer materials.

[Claim 18] 18. The golf ball according to claim 8 wherein the golf ball further comprises a thread layer disposed around the core.

[Claim 19] 19. The golf ball according to claim 8 wherein the cover layer has a thickness ranging from 0.015 inch to 0.030 inch.

[Claim 20] 20. The golf ball according to claim 8 wherein the plurality of depressions is four to eight depressions.

[Claim 21] 21. The golf ball according to claim 8 wherein the plurality of depressions is six depressions.

[Claim 22] 22. A golf ball comprising:

a core;

a boundary layer disposed over the core;

a cover layer disposed over the boundary layer, the cover layer

having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer

having a plurality of multi-faceted polygons defined by the plurality of lattice

members, a majority of the multi-faceted polygons having at least twenty-four facets; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer.

[Claim 23] 23. The golf ball according to claim 21 wherein the each of the plurality of depressions have a depth equal to the thickness of the cover layer and the boundary layer.

[Claim 24] 24. The golf ball according to claim 21 wherein the each of the plurality of depressions extend through the cover layer and the boundary layer and into the core.

[Claim 25] 25. A golf ball comprising:

a core;

a boundary layer disposed over the core;

a cover layer disposed over the boundary layer, the cover layer

having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer

having a plurality of lattice members wherein an apex of at least one of the

plurality of lattice members defines the greatest extent of the golf ball,

wherein each of the lattice members has continuous surface contour; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer.

[Claim 26] 26. The golf ball according to claim 24 wherein the each of the plurality of depressions have a depth equal to the thickness of the cover layer and the boundary layer.

[Claim 27] 27. The golf ball according to claim 24 wherein the each of the plurality of depressions extend through the cover layer and the boundary layer and into the core.

[Claim 28] 28. The golf ball according to claim 24 wherein the cover layer is composed of a polyurethane material.

[Claim 29] 29. A golf ball comprising:

a core composed of a polybutadiene material;

a boundary layer disposed over the core, the boundary layer composed of a blend of ionomer materials;

a cover layer disposed over the boundary layer, the cover layer composed of a polyurethane material, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of

multi-faceted polygons defined by a plurality of lattice members, each of the multi-faceted polygons having at least fourteen facets; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer.

[Claim 30] 30. The golf ball according to claim 28 wherein the each of the plurality of depressions have a depth equal to the thickness of the cover layer and the boundary layer.

[Claim 31] 31. The golf ball according to claim 28 wherein the each of the plurality of depressions extend through the cover layer and the boundary layer and into the core.

[Claim 32] 32. A golf ball comprising:

a solid core having a PGA compression ranging from 75 points to 120 points, the solid core composed of a polybutadiene blend and having a diameter in the range of 1.45 inches to 1.55 inches;

a boundary layer disposed about the core;

a cover layer disposed over the boundary layer, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of lattice members wherein an apex of at least one of the

plurality of lattice members defines the greatest extent of the golf ball, wherein each of the lattice members has continuous surface contour; and a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer;

wherein the golf ball has a ball Shore D hardness ranging from 45 points to 75 points as measured on the surface of the golf ball and the golf ball has an USGA initial velocity less than 255.0 feet per second.

[Claim 33] 33. A golf ball comprising:

a solid core composed of a polybutadiene blend and having a PGA compression ranging from 75 points to 120 points;

a boundary layer disposed over the core;

a cover layer disposed over the boundary layer, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of multi-faceted polygons defined by the plurality of lattice members, a majority of the multi-faceted polygons having at least twenty-four facets; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer;

wherein the golf ball has a coefficient of restitution at 143 feet per second greater than 0.7964, and an USGA initial velocity less than 255.0 feet per second, and the golf ball has a ball Shore D hardness ranging from 45 points to 75 points as measured on the surface of the golf ball.

[Claim 34] 34. A golf ball comprising:

a solid core composed of a polybutadiene blend, having a PGA compression ranging from 90 points to 120 points, and having a diameter ranging from 1.45 inches to 1.55 inches;

a boundary layer disposed about the core, the boundary layer composed of a blend of ionomers, having a Shore D hardness ranging from 50 points to 75 points as measured on the curved surface of the boundary layer, and the boundary layer having a thickness ranging from 0.040 inch to 0.09 inch;

a cover layer disposed over the boundary layer, the cover layer composed of a polyurethane material, the cover layer having a thickness ranging from 0.010 inch to 0.100 inch, the cover layer having a plurality of

multi-faceted polygons defined by a plurality of lattice members, each of the multi-faceted polygons having at least fourteen facets; and

a plurality of depressions in the cover layer, each of the plurality of depressions having a depth at least equal to the thickness of the cover layer;

wherein the golf ball has a coefficient of restitution at 143 feet per second greater than 0.7964, and an USGA initial velocity less than 255.0 feet per second, and the golf ball has a ball Shore D hardness ranging from 50 points to 75 points as measured on the surface of the golf ball.

[Claim 35] 35. The golf ball according to claim 33 wherein the each of the plurality of depressions have a depth equal to the thickness of the cover layer and the boundary layer.

[Claim 36] 36. The golf ball according to claim 33 wherein the each of the plurality of depressions extend through the cover layer and the boundary layer and into the core.